

1    **Amendments to the Claims:**

2    This listing of claims will replace all prior versions, and listings of claims in the  
3    application:

4    **Listing of Claims:**

5                   Claims 1-35 (Cancelled)

1                   36. (New)    A method of identifying an inhibitor of a  
2    glycosyltransferase that transfers a monosaccharide from a sugar nucleotide to an  
3    acceptor substrate, the method comprising contacting the glycosyltransferase, an acceptor  
4    substrate, and a donor substrate with a hydrophobic, non-carbohydrate test compound  
5    that inhibits interaction of a sugar with hydrophobic amino acids in the active site of the  
6    glycosyltransferase and determining the degree to which the activity of the  
7    glycosyltransferase is inhibited in the presence of the test compound.

1                   37. (New)    The method of claim 36, wherein the activity of the  
2    glycosyltransferase is determined using an antibody that is specifically immunoreactive  
3    with a product of the reaction catalyzed by the glycosyltransferase.

1                   38. (New)    The method of claim 37, which is an ELISA format.

1                   39. (New)    The method of claim 36, wherein the glycosyltransferase is  
2    expressed in a recombinant cell.

1                   40. (New)    The method of claim 36, wherein the donor substrate or  
2    acceptor substrate is labeled.

1                   41. (New)    The method of claim 40, wherein the label is a radioactive  
2    label.

- 1                   42. (New)    The method of claim 41, which is a radioactive column  
2    assay.
- 1                   43. (New)    The method of claim 40, wherein the label is a fluorescent  
2    label.
- 1                   44. (New)    The method of claim 36, wherein the glycosyltransferase is  
2    a fucosyltransferase.
- 1                   45. (New)    The method claim 36, wherein the glycosyltransferase is a  
2    sialyltransferase.
- 1                   46. (New)    The method claim 36, wherein the glycosyltransferase is an  
2    *N*-acetylglucosaminyltransferase.
- 1                   47. (New)    The method of claim 36, wherein the compound comprises  
2    an aromatic or aliphatic ring structure.
- 1                   48. (New)    The method of claim 36, wherein the compound comprises  
2    an aryl moiety.
- 1                   49. (New)    The method claim 36, wherein the compound comprises a  
2    heteroaryl moiety.
- 1                   50.     (New)    The method of claim 25, wherein the heteroaryl moiety is  
2    selected from the group consisting of a thiophene, pyridine, isoxazole, phthalimide,  
3    pyrazole, indole, quinoline, phenothiazine, carbazole, benzopyranone, and a furan group.